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## Do Trials of Perpetrators Retraumatize Crime Victims?

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### Abstract

Attendance at trials of perpetrators could be retraumatizing for crime victims suffering from posttraumatic stress disorder. To investigate this hypothesis, two studies were conducted in which retraumatization was defined as a significant increase in posttraumatic stress reactions. A cross-sectional study of 137 victims of rape and non-sexual assault revealed that trial variables do virtually not predict posttraumatic stress reactions at a time several years after trial. A longitudinal study of 31 victims of rape and non-sexual assault revealed intraindividual stability of posttraumatic stress reactions for the time interval from a few weeks before the trial to a few weeks after the trial; in addition, interindividual stability was high. The results of both studies do not support the retraumatization hypothesis, which should therefore be used with caution.

*Key Words:* crime victims; posttraumatic stress disorder; criminal justice; legal testimony; psychological stress

### Do Trials of Perpetrators Retraumatize Crime Victims?

Criminal victimizations often lead to serious psychological consequences (Davis, Taylor, & Lurigio, 1996; Frieze, Hymer, & Greenberg, 1987; Janoff-Bulman, 1995; Norris & Kaniasty, 1994). Moreover, criminal victimizations are often traumatizing: epidemiological studies show that prevalence of Posttraumatic Stress Disorder (PTSD) is high among victims of violent crimes, where prevalence values lie between 35% to 70% for rape victims, 2% to 58% for victims of physical assault, and 18% to 28% for victims of robbery (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Kilpatrick et al., 1989). In a study of 251 victims who had recently been involved in criminal proceedings against the perpetrator, PTSD was diagnosed for 69% of the participating rape victims, for 58% of physical assault victims, and for 27% of robbery victims (Freedy, Resnick, Kilpatrick, Dansky, & Tidwell, 1994).

It is not a matter of controversy that attendance at trials of perpetrators frequently leads to severe psychological stress among crime victims. However, occasionally it is stated that trials could be retraumatizing for the crime victims involved (Gutheil, Bursztajn, Brodsky, & Strasburger, 2000; Koss, 2000; Pitman, Sparr, Saunders, & McFarlane, 1996). In particular, reference is made to victim testimony, which requires detailed recall and report of the traumatic event, as well as to the frequency of victim blaming by judges or defenders.

### Definition of Retraumatization

Retraumatization is defined in this study as a significant increase in the frequency of posttraumatic stress reactions to the original trauma, thus as an exacerbation of PTSD. Retraumatization effects by events like a trial may persist for only a short time, but there may also be long-term effects.

The concept of retraumatization should be distinguished from victimization by a second traumatic event. Traumatic events involve the experience, witnessing or confrontation with actual or threatened death or serious injury, or a threat to the physical integrity of self or others (American Psychiatric Association, 1994). Normally, trials are not traumatizing with

respect to this definition; however, they could be retraumatizing with respect to the definition specified above.

Trials may have other negative psychological effects that have to be distinguished from retraumatization effects, such as effects on other psychological disorders than PTSD, losses in self-esteem, losses in social trust, or persisting rumination about injustice experienced in the trial. In a study of mental health professionals, 81% of the participants believed that contact with the legal system can be psychologically harmful for rape victims (Campbell & Raja, 1999). In a study of rape victims, 52% appraised the contact with the legal system as harmful (Campbell, Wasco, Ahrens, Sefl, & Barnes, 2001).

#### Empirical Findings on Retraumatization by Trials

Up to now, few empirical studies have been conducted that contribute to the question of whether trials have retraumatization effects among crime victims. The resulting empirical evidence is small and inconsistent.

In a study of victims of robbery ( $N = 74$ ), who were interviewed in the first four weeks after the trial, the frequency of posttraumatic stress reactions did not covary systematically with assessments of the trial (Hammer, 1989). However, statistical tests were conducted only within subgroups presumably leading to insufficient statistical power.

In a study of victims of sexual assault ( $N = 91$ ), the frequency of PTSD-Symptoms was not related to whether the case was referred to the prosecuting attorney or not, and whether the case had been charged (Frazier & Haney, 1996). The influence of variables of the trial was not analyzed, because the main concern of the study was variables in the preliminary stages of the criminal proceedings.

In a study of victims of a natural disaster ( $N = 32$ ), 57% of the participants assessed the civil litigation process as traumatizing (McFarlane, 1996). However, it is possible that the subjective perception of the participants does not correspond with objective measures of the litigation process effects.

In a study based on an epidemiological data set, victims of sexual abuse ( $N = 288$ ) had a higher lifetime prevalence of PTSD if they had testified in court (Epstein, Saunders, & Kilpatrick, 1997). However, if severity of incident was included in a multiple regression analysis of PTSD status, the fact of having testified was no statistically significant predictor.

Finally, in a study of rape victims ( $N = 102$ ) legal secondary victimization (e.g., the police told the victim the case was not serious enough to pursue) was positively associated with posttraumatic stress reactions (Campbell, Sefl, et al., 1999).

### Potential Causes of Retraumatization by Trials

As mentioned above, the testimony situation is frequently cited as a potential cause of retraumatization by trials (Koss, 2000). Posttraumatic avoidance, which besides its negative effects temporarily may fulfill positive adaptive functions, is substantially reduced during a trial and especially in the testimony phase. Already in the preceding weeks before the trial crime victims often try to anticipate the situation and prepare their testimony and answers to the expected questions (Pitman et al., 1996).

For victims the trial represents a major confrontation with the perpetrator. In addition, victims can perceive the criminal proceedings as a further serious interpersonal conflict with the perpetrator (Pitman et al., 1996). On the other hand, the trial may result in a substantial decrease in fear of repeated harm by the perpetrator, if the victim concludes that the perpetrator is no longer a menace due to experiences in the trial. Relieving information can result from long imprisonment of the perpetrator, but also from an acknowledgement of the wrong-doing and a credible request for forgiveness by the perpetrator.

Further stressful aspects of trials are: (a) The long delay between reporting a crime to the police and the beginning of the trial represents another source of psychological stress for crime victims (Gutheil et al., 2000). In McFarlane's study (1996), this was an influential predictor for the victims' evaluation of the litigation process as traumatizing. (b) Some victims have the experience that the perpetrator, defender or even the judge blame the victim

for being partially or fully responsible for the criminal offense (Koss, 2000; Pitman et al., 1996). (c) Many crime victims are outraged at the court decision. (d) Besides the trial outcome the process itself is a frequent source of indignation, especially negative assessments of procedural justice (Lind & Tyler, 1988).

### Objectives

Study 1 is a cross-sectional analysis of long-term effects of trials. The hypothesis that trial variables predict the frequency of posttraumatic stress reactions among victims involved in a trial several years previously is tested. Hierarchical regression analysis is used to determine whether the variance explained by trial variables increases the variance explained by demographic and victimological variables.

Study 2 is a longitudinal analysis of short-term effects of trials. The data are gathered at two time points: a few weeks before the trial and a few weeks after the trial. The analysis tests whether significant changes in posttraumatic stress reactions occur, and whether trial variables predict change.

### Study 1

#### *Method*

##### *Participants*

Participants were contacted with the help of the German victim assistance association *Weisser Ring*. The individuals surveyed were chosen at random, and were sent a questionnaire with a request to take part in the study. Participant anonymity was protected. The response rate was 32%. In this study, data are analyzed from those victims in whose cases a trial actually had taken place. Not included are those victims in whose cases the criminal proceedings had been closed without a trial.

The sample consisted of 137 victims of violent crimes. 83% of the participants were women and 17% were men. Sixty-five participants were victims of rape; 72 participants were victims of non-sexual assault (bodily harm, robbery, deprivation of liberty). The mean age at

the time of the study was 38.3 years ( $SD = 12.3$ , range 19-65 years). Level of school education was as follows: 42% did not finish school or finished the obligatory 9 years, and were coded as low education; 58% finished high school (10 years) or academic-track high school (ca. 13 years), and were coded as high education. The educational level of the sample is roughly representative of the German population. Mean time since the trial was 3.0 years ( $SD = 1.9$  years). The trial had required on average 2.9 days in court ( $SD = 3.9$  days). Mean time since victimization was 4.3 years ( $SD = 2.3$  years).

The sample was drawn from the population of victims who had received financial support by the *Weisser Ring* within the last five years (i.e., the fees of the victim's attorney were paid). Some characteristics of the population of victims that receive help from this victim assistance association are documented for comparison purposes. In the year 2001, the association gave support to about 10,000 victims. Of these, 35% were victims of sexual assault, 43% were victims of physical assault, robbery, or theft, and 22% were victims of other crimes. In 22% of the cases the victim age was 20 years or less, in 42% between 21 and 40 years, in 22% between 41 and 60 years, and in 13% 60 years or more. 73% of the victims were women and 27% were men.

### *Measures*

*Posttraumatic stress reactions.* The Impact of Event-Scale--Revised, IES-R (Weiss & Marmar, 1997; for the German version see Maercker & Schützwohl, 1998) was used to assess the frequency of posttraumatic stress reactions in the preceding seven days. The intrusion subscale includes 7 items (Cronbach's  $\alpha = .87$  in this study); the avoidance subscale includes 8 items (Cronbach's  $\alpha = .78$  in this study); and the hyperarousal subscale includes 7 items (Cronbach's  $\alpha = .87$  in this study). The value range is 0 to 35 for intrusion and hyperarousal, and 0 to 40 for avoidance. In the German IES-R validation study, a linear regression equation was determined that can be used to estimate PTSD rate in

samples, with a sensitivity of .70 to .76 and a specificity of .88 to .89 (Maercker & Schützwohl, 1998).

*Trial variables.* Eight subjective variables of the trials were measured. Satisfaction with the court decision (outcome evaluation) was assessed with a single item: “How satisfied have you been with the court decision?” Answers were measured on a 7-point scale (-3 = *very dissatisfied*, 3 = *very satisfied*). The perceived procedural justice of the trial was assessed using a scale with six items (Cronbach’s alpha = .79). An item example is: “I had insufficient rights compared to the perpetrator.” Answers were measured on a 6-point scale (0 = *not at all right*, 5 = *completely right*). The emotional reaction to the court decision was assessed using two single items assessing “moral satisfaction with the court decision” and “relief at the court decision”. Participants had to rate the intensity of these feelings. Answers were measured on a 6-point scale (0 = *not at all*, 5 = *very strong*). Psychological stress caused by the testimony and psychological stress due to delay until the beginning of the trial were assessed as single items: “Giving testimony was stressful to me.”; “It was stressful to me, that it took such a long time before the case came to trial.” Answers were measured on a 6-point scale (0 = *not at all right*, 5 = *completely right*). Victim blaming by the judge and victim blaming by the defender or perpetrator were assessed as single items: “The judge insinuated that I was partially to blame for the crime.”; “The perpetrator or the defender insinuated that I was partially to blame for the crime.” Answers were measured on a 6-point scale (0 = *not at all right*, 5 = *completely right*).

*Victimological variables.* The initial emotional reaction at the time of the victimization was assessed with a single item: “Did you experience fear, helplessness or fright at the time of the crime or directly after the crime?” Answers were measured on a 6-point scale (0 = *not at all*, 5 = *very strongly*). Severity of physical harm was assessed with two items (Cronbach’s alpha = .79). Participants assessed on the one hand physical injury and pain at the time of the victimization, and on the other hand enduring bodily harm (disabilities, pain, disfigurement).



Answers were measured on a 6-point scale (0 = *not at all*, 5 = *very serious*). Emotional support from friends and relatives was assessed with four items (Cronbach's alpha = .90). An item example is: "In the time since the victimization, relatives or friends have given me consolation and hope." Answers were measured on a 6-point scale (0 = *not at all right*, 5 = *completely right*).

### Results

Table 1 shows means and standard deviations of the measures used and correlations of the IES-R subscales. The PTSD sample rate amounts to 51% according to the regression equation mentioned above. The trial variables are predominantly uncorrelated with the frequency of posttraumatic stress reactions. However, five out of six correlations of moral satisfaction and relief are statistically significant. The directions correspond with the retraumatization hypothesis, but the correlation levels are low. Demographic and victimological variables substantially covary with the IES-R subscales, particularly with intrusion and hyperarousal, and to a lesser extent with avoidance. The directions of all correlations of demographic and victimological variables are as expected. The statistical power of the correlation analysis is high: a sample size of  $N = 137$  allows for detection of true relations from  $r = .23$ , with an alpha error = .05 and a beta error = .20 taken as basis (Cohen, 1988). To assess the problem of biased recall due to retrospective measurement of trial variables, correlations between trial variables and time since trial were computed. Only delay stress showed a significant correlation with  $r = -.23$ ; the other correlations were statistically insignificant.

Table 2 shows the summary of a hierarchical regression analysis predicting posttraumatic intrusion. First, in step 1, the demographic and victimological variables are entered simultaneously in the regression equation, because these variables are known to predict posttraumatic stress reactions. Then, step 2, tests the incremental variance explained by trial variables. Trial variables, which have rarely been considered in the past, should

indicate that they increase the variance explained by demographic and victimological variables. In step 2, the stepwise method is used because of the explorative status of the analysis. Only the variable moral satisfaction qualifies for the regression equation ( $R^2$ -Change = .03), with a regression coefficient of  $\beta = -.18$ . The directions of all regression coefficients are as expected.

The results of hierarchical regression analysis predicting posttraumatic hyperarousal are structurally similar: step 1 results in  $R^2 = .27$  ( $p < .01$ ), step 2 results in  $R^2 = .30$  ( $p < .01$ ). Again, the only trial variable that significantly contributes to the regression equation is the variable moral satisfaction with  $\beta = -.18$  ( $p < .05$ ), increasing the variance explained by  $R^2$ -Change = .03 ( $p < .05$ ).

Regarding regression analysis predicting posttraumatic avoidance, the variance explained is considerably lower with  $R^2 = .10$  ( $p < .05$ ) in step 1. In step 2, no trial variable significantly increases the variance explained.

## Study 2

### *Method*

#### *Participants*

As in Study 1, crime victims who had received financial support from the German victim assistance association *Weisser Ring* were asked to participate in the study, which required them to fill out a questionnaire once before the trial (Time 1) and once after the trial (Time 2). The individuals surveyed were chosen at random. The sample consists of 31 individuals. About 100 individuals were contacted by the *Weisser Ring* (unfortunately, the exact number was not documented). Thus, the estimated response rate amounts to 31%. Twenty-five of the participants were women. Twelve individuals were victims of rape, nineteen individuals were victims of non-sexual assaults (bodily harm, robbery, deprivation of liberty). The mean age at Time 1 was 36.6 years ( $SD = 12.8$ , range 18-62 years). Level of school education was as follows: 32% did not finish school or finished the obligatory 9 years,

coded as low education; 68% finished high school (10 years) or academic-track high school (ca. 13 years), coded as high education. The educational level of the sample is roughly representative of the German population.

Measurement at Time 1 was conducted on average 4.2 months ( $SD = 3.4$  months) before the trial, measurement at Time 2 on average 1.2 months ( $SD = 1.3$  months) after the trial. Thus, the mean time interval between Time 1 and Time 2 was 5.4 months. The trial required on average 2.4 days in court ( $SD = 2.0$  days). Mean time since victimization at Time 1 was 0.7 years ( $SD = 0.8$  years).

### *Measures*

Again, the Impact of Event-Scale--Revised, IES-R (Weiss & Marmar, 1997; for the German version see Maercker & Schützwohl, 1998) was used to assess the frequency of posttraumatic stress reactions in the preceding seven days. It has been shown that the IES-R is qualified for the assessment of intra-individual change measurement (Maercker & Schützwohl, 1998). Trial variables identical to the variables used in Study 1 are measured for purposes of correlation analysis.

### *Results*

The left side of table 3 shows means, standard deviations and test-retest correlations of the IES-R subscales for Time 1 and Time 2. The PTSD sample rate amounts to 77% at Time 1 and 65% at Time 2 according to the regression equation mentioned above. Test-retest correlations amount to values between .54 and .75. Mean differences of IES-R subscales between Time 1 and Time 2 show a decrease of 1.4 to 2.3 points.

Mean differences of IES-R subscales do not significantly differ from 0 (for intrusion  $t = 1.06$ ,  $df = 30$ ,  $p = .30$ ; for avoidance  $t = 1.48$ ,  $df = 30$ ,  $p = .15$ ; for hyperarousal  $t = 1.57$ ,  $df = 30$ ,  $p = .13$ ). However, estimation of confidence intervals for mean differences by use of standard errors is a crucial statistic in this type of study (cf. Cohen, 1990). Confidence intervals allow to assess the potential range of the true scores in the population. With a

probability of 95%, the true mean differences in this sample are not above slight increases in the frequency of posttraumatic stress reactions (1.2 points for intrusion, 0.6 points for avoidance, 0.7 points for hyperarousal). The lower limits of the confidence intervals are documented as well, but are of less interest in the analysis of retraumatization effects (-3.9 points for intrusion, -4.0 points for avoidance, -5.2 points for hyperarousal).

The right side of table 3 shows effect sizes of the mean differences of IES-R subscales between Time 1 and Time 2. Effect sizes are calculated here to allow comparison of retraumatization effects with other effects, e.g. treatment effects. Cohen's  $d$  is a widely used measure of effect size and is calculated as the ratio between the mean difference and the mean standard deviation of Time 1 and Time 2 (Cohen, 1988; values for small, medium, and large effects are also given in Cohen, 1992). Analogically, effect sizes are calculated that correspond with the lower and upper limits of the previously-described confidence intervals of IES-R mean differences. The observed effect sizes have to be assessed as small negative effects (-0.18 to -0.28). The effect sizes of the upper limits of the confidence intervals correspond to very small positive effects (0.07 to 0.16). The effect sizes of the lower limits of the confidence interval correspond to medium negative effects (-0.45 to -0.64).

Even if a sample size of  $N = 31$  allows for detection of true relations between variables only from  $r = .44$ , with an alpha error = .05 and a beta error = .20 taken as basis (Cohen, 1988), a correlation analysis for the trial variables shall be conducted. On account of low statistical power, correlations are documented only for the sum score of the IES-R subscales to save space (the general pattern holds when the subscales are examined). Table 4 shows means and standard deviations of the trial variables and correlations with the differences of the sum score of IES-R subscales. The directions of all eight correlations are as expected.

## General Discussion

The results suggest that trials of perpetrators do not cause retraumatization among the crime victims involved, in either the long- or the short-term. Retraumatization is defined here as a significant increase in the frequency of posttraumatic stress reactions.

The results of Study 1 show that trial variables do virtually not predict posttraumatic stress reactions several years after the trial. The trial variables measured were outcome evaluation, procedural justice, moral satisfaction with the court decision, relief at the court decision, stress caused by testimony, stress caused by delay until the beginning of the trial, victim blaming by judge as well as victim blaming by perpetrator or defender. According to the hierarchical regression analysis for posttraumatic intrusion and hyperarousal, only moral satisfaction significantly increased the variance explained by demographic and victimological variables. Victims who had experienced moral satisfaction with the court decision reported less intrusion and hyperarousal several years later. Trial variables were of no importance in the prediction of posttraumatic avoidance. The results of Study 1 correspond with findings from other empirical studies (Epstein et al., 1997; Frazier & Haney, 1996; Hammer, 1989).

The results of Study 2 show in addition that posttraumatic stress reactions do not increase even in the first weeks after a trial, i.e. intraindividual stability is given. The analysis is founded on longitudinal data gathered a few months before and a few weeks after the trial. The mean difference in frequency of posttraumatic stress reactions between Time 1 and Time 2 corresponds with a small negative effect size (a reduction in posttraumatic stress reactions). The calculated confidence intervals of mean differences support the conclusion that trials generally do not cause retraumatization among crime victims.

Furthermore, the test-retest correlations determined in Study 2, which are indicators of interindividual stability, are quite close to test-retest reliabilities determined in the German validation study of the measurement instrument (Maercker & Schützwohl, 1998). Based on a three-month interval, the test-retest reliabilities were .80 for the intrusion subscale (.60 in this study, based on a five-month interval), .66 for the avoidance subscale (.54 in this study), and

.79 for the hyperarousal subscale (.75 in this study). These results also suggest that, presumably, the trial did not strongly influence the frequency of posttraumatic stress reactions among the participants; if there had been extraordinary situational influences in the time between Time 1 and Time 2, test-retest correlations should have been considerably lower.

The correlation analysis of the IES-R scale with trial variables in Study 2 revealed that moral satisfaction with the court decision and relief at the court decision, as well as perceived blame by judge tend to covary with change in frequency of posttraumatic stress reactions. Even if the correlations are not significant with  $p < .05$ , the corresponding correlation results of Study 1 and Study 2 suggest that moral satisfaction and relief at the time of the court decision might have at least a moderate long-term impact on posttraumatic stress reactions among crime victims. This could be a starting point for further investigations of the psychological consequences of court decisions on crime victims.

Sample characteristics account for limitations of the study. The response rate is only 32% (Study 1) and 31% (Study 2) and non-responders might differ in some unknown way from the sample with respect to their experiences in the trial. Though it is generally difficult to obtain high response rates in surveys with crime victims, the low response rate restricts the generality of the findings. Non-responders might have had more negative and more retraumatizing experiences during the trial, and consequently might not have wanted to participate in the study because it would have meant having to remember the trial. However, in contrast, the diverse trial evaluations documented in both studies provide no evidence that the samples studied had had particularly advantageous contact with the criminal justice system. Moreover, the sample did not substantially differ from the population from which the sample was drawn with respect to demographic characteristics (assault type, age and gender), as can be seen from the data in the method section of Study 1.

A second significant factor in sample selection is represented by the fact that participants in both studies received support from a victim assistance association. This could

have been a moderating factor of negative trial effects on victims. Unfortunately, it is usually difficult in victim surveys to recruit victims who have no contact at all with assistance associations or support groups. It might prove useful, in future research, to try to obtain more representative samples with the help of the courts. It seems possible that the participants in this study were provided with better knowledge of the criminal justice system, and were given more social support during the trial than victims in representative samples. However, it should not be assumed that victim support could fully compensate for potential retraumatization effects of trials.

There might be methodological problems with using retrospective assessments of the trial as in Study 1, especially with PTSD-related populations. The mean time since the trial in this sample was three years. On the one hand, correlations of trial variables with time since trial were insignificant with the exception of the variable delay stress, which showed a low negative correlation. This result suggests that there was no substantially biased recall of the experiences in the trial. On the other hand, the fact that there was no correlation between trial variables and time since trial does not strictly preclude the possibility that victims were biased in their recall based on other factors than length of time, e.g. PTSD symptoms. However, the corresponding results of the prospective data in Study 2 corroborate the conclusions based on the retrospective data in Study 1.

A further limitation is that in both studies measurement of trial variables was based on self-reports. Future studies should use other types of data, e.g. observation data or objective data. However, this limitation pertains only to the correlation and regression analysis of retraumatization effects. The size of retraumatization effects, as measured in Study 2, is not affected by this limitation.

The longitudinal design of Study 2 did not include a control group; thus, the study does not test whether posttraumatic stress reactions might have been further reduced for the participants in Study 2 if they had not participated in a trial. Therefore, future studies should

use a control group design (cf. Goodman et al, 1992). However, the results show that posttraumatic stress reactions did not significantly increase in the time interval investigated in this study; thus, the results are inconsistent with the retraumatization hypothesis.

A final limitation is that the study was conducted in just one country, which may have particularities with its legal system (e.g. trial procedures). In other countries with other legal systems, trials might have larger retraumatizing effects on crime victims. Due to these limitations, any conclusions based on this study must be regarded as tentative at this time.

Altogether, the empirical results of this study do not support the hypothesis that trials of perpetrators cause retraumatization among crime victims. Therefore, the retraumatization hypothesis should be used with caution, especially in public, as the decision of victims to report a crime to the police depends, among other things, on the information available about personal consequences of criminal proceedings.



## References

- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders: DSM-IV*. Washington, DC: American Psychiatric Association.
- Campbell, R., & Raja, S. (1999). Secondary victimization of rape victims: Insights from mental health professionals who treat survivors of violence. *Violence and Victims, 14*, 261-275.
- Campbell, R., Sefl, T., Barnes, H. E., Ahrens, C. E., Wasco, S. M., & Zaragoza-Diesfeld, Y. (1999). Community services for rape survivors: Enhancing psychological well-being or increasing trauma? *Journal of Consulting and Clinical Psychology, 67*, 847-858.
- Campbell, R., Wasco, S. M., Ahrens, C. E., Sefl, T., & Barnes, H. E. (2001). Preventing the "second rape": Rape survivors' experiences with community service providers. *Journal of Interpersonal Violence, 16*, 1239-1259.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.
- Cohen, J. (1990). Things I have learned (so far). *American Psychologist, 45*, 1304-1312.
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*, 155-159.
- Davis, R. C., Taylor, B., & Lurigio, A. J. (1996). Adjusting to criminal victimization: The correlates of postcrime distress. *Violence and Victims, 11*, 21-38.
- Epstein, J. N., Saunders, B. E., & Kilpatrick, D. G. (1997). Predicting PTSD in women with a history of childhood rape. *Journal of Traumatic Stress, 10*, 573-588.
- Frazier, P. A., & Haney, B. (1996). Sexual assault cases in the legal system: Police, prosecutor, and victim perspectives. *Law and Human Behavior, 20*, 607-628.
- Freedly, J. R., Resnick, H. S., Kilpatrick, D. G., Dansky, B. S., & Tidwell, R. P. (1994). The psychological adjustment of recent crime victims in the criminal justice system. *Journal of Interpersonal Violence, 9*, 450-468.

- Frieze, I. H., Hymer, S., & Greenberg, M. S. (1987). Describing the crime victim: Psychological reactions to victimization. *Professional Psychology: Research and Practice, 18*, 299-315.
- Goodman, G. S., Taub, E. P., Jones, D. P. H., England, P., Port, L. K., Rudy, L., & Prado, L. (1992). Testifying in criminal court. *Monographs of the Society for Research in Child Development, 57*(5), 1-142.
- Gutheil, T. G., Bursztajn, H., Brodsky, A., & Strasburger, L. H. (2000). Preventing "critogenic" harms: Minimizing emotional injury from civil litigation. *Journal of Psychiatry and Law, 28*, 5-18.
- Hammer, J. H. (1989). *The effect of offender punishment on crime victim's recovery, and perceived fairness (equity) and process control*. Ann Arbor, MI: University Microfilms International.
- Janoff-Bulman, R. (1995). Victims of violence. In G. S. Everly & J. M. Lating (Eds.), *Psychotraumatology: Key papers and core concepts in post-traumatic stress* (pp. 73-86). New York: Plenum Press.
- Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry, 52*, 1048-1060.
- Kilpatrick, D. G., Saunders, B. E., Amick-McMullan, A., Best, C. L., Veronen, L. J., & Resnick, H. S. (1989). Victim and crime factors associated with the development of crime-related post-traumatic stress disorder. *Behavior Therapy, 20*, 199-214.
- Koss, M. P. (2000). Blame, shame, and community: Justice responses to violence against women. *American Psychologist, 55*, 1332-1343.
- Lind, E. A., & Tyler, T. R. (1988). *The social psychology of procedural justice*. New York: Plenum.

- Maercker, A., & Schützwohl, M. (1998). Erfassung von psychischen Belastungsfolgen: Die Impact of Event Skala--revidierte Version (IES-R) [Assessment of post-traumatic stress reactions: The Impact of Event Scale--Revised (IES-R)]. *Diagnostica*, 44, 130-141.
- McFarlane, A. C. (1996). Attitudes to victims: Issues for medicine, the law and society. In C. Sumner & M. Israel & M. O'Connell & R. Sarre (Eds.), *International victimology: Selected papers from the 8th International Symposium* (pp. 259-275). Canberra, Australia: Australian Institute of Criminology.
- Norris, F. H., & Kaniasty, K. (1994). Psychological distress following criminal victimization in the general population: Cross-sectional, longitudinal, and prospective analyses. *Journal of Consulting and Clinical Psychology*, 62, 111-123.
- Pitman, R. K., Sparr, L. F., Saunders, L. S., & McFarlane, A. C. (1996). Legal issues in posttraumatic stress disorder. In B. A. van der Kolk & A. C. McFarlane & L. Weisaeth (Eds.), *Traumatic stress: The effects of overwhelming experience on mind, body and society* (pp. 378-397). New York: Guilford.
- Weiss, D. S., & Marmar, C. R. (1997). The Impact of Event Scale--Revised. In J. P. Wilson & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD* (pp. 399-411). New York: Guilford.

Authors' Note

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Table 1

*Study 1: Means and Standard Deviations of IES-R Subscales, Trial Variables and Victimological Variables, and Correlations of IES-R Subscales (N = 137)*

Variables	<i>M</i>	<i>SD</i>	<i>r</i>		
			Intrusion	Avoidance	Hyperarousal
Impact of Event-Scale--R					
Intrusion	20.1	9.4	--		
Avoidance	20.3	9.8	.50**	--	
Hyperarousal	20.2	10.1	.79**	.62**	--
Trial variables					
Outcome evaluation	-0.93	2.16	-.02	-.02	-.05
Procedural justice	2.95	1.29	.00	-.09	-.08
Moral satisfaction	1.76	1.73	-.19*	-.15*	-.16*
Relief	2.17	1.87	-.16*	-.15*	-.14
Testimony stress	2.88	2.09	.02	.03	.00
Delay stress	3.82	1.56	.01	.08	.03
Blame by judge	0.95	1.58	.14	.13	.10
Blame by perpetrator or defender	2.26	2.17	-.01	-.01	-.04
Victimological variables					
Initial emotional reaction	4.64	0.90	.20*	.01	.11
Physical harm	2.42	1.79	.32**	.17*	.23**
Emotional support	3.77	1.31	-.29**	-.11	-.20*
Demographic variables					
Age	--	--	.21**	.14*	.25**
Education <sup>a</sup>	--	--	-.35**	-.26**	-.41**

*Note.* <sup>a</sup>0 = low, 1 = high.

\* $p < .05$ . \*\* $p < .01$ . (1-tailed).

Table 2

*Study 1: Summary of Hierarchical Regression Analysis for Demographic and Victimological Variables, and Trial Variables Predicting Posttraumatic Intrusion (N = 136)*

Predictors	$R^2$	$\Delta R^2$	$B^a$	$SE B^a$	$\beta^a$
Step 1 <sup>b</sup> : Demographic and victimological variables	.34**	--			
Age			0.01	0.01	.13
Education <sup>c</sup>			-0.83	0.20	-.30**
Initial emotional reaction			0.29	0.11	.19**
Physical harm			0.21	0.05	.28**
Emotional support			-0.27	0.08	-.26**
Step 2 <sup>d</sup> : Trial variables	.37**	.03*			
Moral satisfaction			-0.14	0.06	-.18*

*Note.* <sup>a</sup>Final results; <sup>b</sup>Method = Enter; <sup>c</sup>0 = low, 1 = high; <sup>d</sup>Method = Stepwise.

\* $p < .05$ . \*\* $p < .01$ .

Table 3

*Study 2: Means, Standard Deviations, Test-Retest Correlations, Effect Size Cohen's  $d$  of Mean Differences between Time 1 and Time 2, and Confidence Intervals of Cohen's  $d$  for IES-R Subscales (N = 31)*

Subscales	$M_{t1}$ ( $SD_{t1}$ )	$M_{t2}$ ( $SD_{t2}$ )	$r_{tt}$	$d$	95%-Confidence interval of $d$	
					Lower limit	Upper limit
Intrusion	26.5 (6.7)	25.1 (8.6)	.60**	-0.18	-0.51	0.16
Avoidance	23.4 (9.1)	21.7 (8.6)	.54**	-0.19	-0.45	0.07
Hyperarousal	25.6 (7.4)	23.3 (9.2)	.75**	-0.28	-0.64	0.08

*Note.* \* $p < .05$ . \*\* $p < .01$ . (1-tailed).

Table 4

*Study 2: Means and Standard Deviations of Trial Variables and Correlations with Difference of Sum Scores of IES-R Subscales between Time 1 and Time 2 (N = 31)*

Variables	<i>M</i>	<i>SD</i>	<i>r</i>	<i>p</i> <sup>a</sup>
Outcome evaluation	0.06	2.38	-.15	.22
Procedural justice	3.51	1.34	-.04	.43
Moral satisfaction	2.03	2.04	-.26	.08
Relief	2.57	2.06	-.23	.11
Testimony stress	3.08	2.18	.11	.31
Delay stress	4.00	1.41	.13	.25
Blame by judge	0.67	1.44	.25	.10
Blame by perpetrator or defender	2.93	2.13	.13	.25

*Note.* A negative correlation means that the trial variable covaries with a reduction of the sum score of the IES-R subscales between Time 1 and Time 2.

<sup>a</sup>1-tailed.